Message

From: Strum, Madeleine [Strum.Madeleine@epa.gov]
Sent: 3/26/2020 4:57:37 PM
To: Smith, Darcie [Smith.Darcie@epa.gov]; Weinstock, Lewis [Weinstock.Lewis@epa.gov]; Davis, Alison [Davis.Alison@epa.gov]
Subject: FW: Notes from March 2 EI Leads call
Attachments: TRIData2017.xlsx; basic_data_files_documentation_aug_2019_v2.pdf; EthyleneOxideEIS.xlsx

Forwarding to keep you in the loop. I just came across this – not sure if it came up on a Regional update call (or if it needed to).
Madeleine

From: Lancey, Susan <lancey.susan@epa.gov>
Sent: Monday, March 9, 2020 10:38 AM
To: Strum, Madeleine <Strum.Madeleine@epa.gov>
Cc: Bird, Patrick <Bird.Patrick@epa.gov>; McConnell, Robert <mcconnell.robert@epa.gov>
Subject: FW: Notes from March 2 EI Leads call

Hi Madeleine,

FYI... see this message I received from CT DEEP regarding an EtO inventory survey MARAMA is working on.

Susan Lancey
U.S. EPA New England
5 Post Office Square
Suite 100 (Mail Code: 05-2)
Boston, MA 02109
Phone: (617) 918-1656

From: Potter, Steven <Steven.Potter@ct.gov>
Sent: Friday, March 06, 2020 7:59 PM
To: Lancey, Susan <lancey.susan@epa.gov>
Subject: Fw: Notes from March 2 EI Leads call

Susan,

FYI – A state initiated Ethylene Oxide (EtO) emission discussions but the call summary only presented questions. I put together EIS and TRI data in support of some of the questions. Other questions appear to be out of scope. I figured I would keep you in the loop since it concerns ETO.

Thanks,

Steve

From: Potter, Steven
Sent: Friday, March 6, 2020 7:48 PM
To: Susan McCusker
Cc: adam.lewis@dep.nj.gov; alexandra.lokerson@dep.nj.gov; acaluseriu@pa.gov; alexandra.catena@dc.gov; alexi.mangili@dem.ri.gov; allison.m.flynn@maine.gov; andrew.bollman@ncdenr.gov; bin.z.schmitz@wv.gov; britrowbri@pa.gov; boshinski@pa.gov; carlos.mancilla@dec.ny.gov; dtrostle@pa.gov; collin.smythe@vermont.gov; david.r.fewell@wv.gov; david.healy@des.nh.gov; Deborah Dutcher Wilson; Denise.E.Cormier@maine.gov; doris.mcleod@deq.virginia.gov; emily.bull@maryland.gov; husain.waheed@maryland.gov; jacquelyn.cuneo@delaware.gov; Jiazheng.Li@phila.gov; joey.huang@ncdenr.gov; john.barnes@dec.ny.gov; jolyon.shelton@delaware.gov; joseph.jakuta@dc.gov; judy.rand@dep.nj.gov; judylrand@verizon.net; karen.slattery@dem.ri.gov; Kathleen.Errington@des.nh.gov; Knight, Kathleen; kenneth.santlal@state.ma.us; kenneth.newkirk@dec.ny.gov; kdalal@pa.gov; kotur.narasimhan@deq.virginia.gov; marcus.tutt@dep.nj.gov; marie.barnes@dec.ny.gov; mark.prettyman@delaware.gov; mahouser@pa.gov; mark.wert@state.ma.us; matt.a.kemper@wv.gov; matthew.davis@ncdenr.gov; maureen.hancock@state.ma.us; michael.kiss@deq.virginia.gov; michael.woodman@maryland.gov; ona.papageorgiou@dec.ny.gov; ranbordner@pa.gov; randy.strait@ncdenr.gov; Rodrigue, Richard; Roger.Thunell@Maryland.gov; Shane.Cone@Delaware.Gov; sharon.davis@dep.nj.gov; sonya.lewis-cheatham@deq.virginia.gov; stacy.r.knapp@maine.gov; tammy.manning@ncdenr.gov; thomas.foster@deq.virginia.gov; Anthony.Sadar@alleghenycounty.us; Walter.Simms@Maryland.gov; Jacobs, Wendy; Bartlett, Joshua W
Subject: RE: Notes from March 2 EI Leads call

Susan,

The attached TRI data and EIS data may be helpful to people answering the Ethylene Oxide (EtO) questions. The EIS information was from EIS process or release point reports and the TRI data was from a Basic Data Files download of https://www.epa.gov/toxics-release-inventory-tri-program/tri-data-and-tools. I downloaded a US file and filtered on ethylene oxide and copied the results to the TRIDate2017.xlsx file (attached). The summary content of the file to the state level is presented below:

US Ethylene Oxide Emissions in 2017 TRI Reporting				
8# ST	SumOf44# 5#1 - FUGITIVE AIR	SumOf45# 5#2 - STACK AIR	Percent Fugitive Release	Count Of Facilities
AR	49.63	4,963.00	0.99%	1
AZ	0.00	491.70	0.00%	1
CA	15.00	0.00	100.00%	1
CO	0.00	2,544.00	0.00%	1
CT	3.00	131.00	2.24%	1
DE	12.50	2,305.00	0.54%	1
FL	0.00	40.00	0.00%	1
GA	1,304.40	245.30	84.17%	4
IA	32.00	467.00	6.41%	1
IL	810.60	2,209.65	26.84%	4
IN	681.00	67.00	91.04%	2
KS	535.00	0.00	100.00%	1
KY	755.00	1,222.00	38.19%	1
LA	11,779.27	46,781.31	20.11%	13

MD	0.00	108.60	0.00%	2
MI	1,919.00	104.60	94.83%	3
MN	0.00	1.00	0.00%	1
MO	3,908.00	5,899.00	39.85%	3
MS	3.56	0.54	86.83%	1
NC	3.10	185.90	1.64%	4
NE	15.00	51.20	22.66%	1
NJ	43.00	171.00	20.09%	2
NV	0.00	43.00	0.00%	1
NY	1.80	6.10	22.78%	1
OH	0.00	0.01	0.37%	1
OK	8.87	0.00	100.00%	1
PA	309.00	6,102.96	4.82%	5
PR	19.00	580.00	3.17%	3
SC	1,185.70	3,555.94	25.01%	7
TN	117.60	30.64	79.33%	2
TX	29,661.13	71,456.05	29.33%	24
UT	7.50	34.73	17.76%	1
VA	992.00	7,842.40	11.23%	3
WI	415.07	695.66	37.37%	3
WV	5,198.55	1,440.21	78.31%	5

Responses for Connecticut:

1. How many and what type of sources do you have reporting EtO in your inventory?

   Connecticut has no sources reporting Ethylene Oxide (EtO) in 2019. In 2017, we had a hospital report ethylene oxide emissions, but our largest source of ethylene oxide is not a Title V source and is not required to report to the emissions inventory. The hospital shutdown the ethylene oxide sterilization process in 2019 emissions reporting with a shutdown date of 9/30/2017.

2. What is the range in pounds or tons on the amounts reported within your jurisdiction?

   8.8 pounds were reported for the Connecticut hospital, but these emissions do not appear in 2017 TRI data for our state. Covidien LP reported a range in TRI reporting and we requested that they supply EPA an estimate to better define the risks for the facility. The downloaded TRI data shows an estimate of 3 pounds of fugitive air emissions and 131 pounds of stack air emissions for all of Connecticut.

3. What is the average amount of EtO reported by each source in each classification from stacks?

   N/A for Connecticut, see the TRI data provide in the above summary and in the attached MS Excel workbook.

4. What is the average amount of EtO reported in each classification as fugitives?

   N/A for Connecticut, see the TRI data provide in the above summary and in the attached MS Excel workbook.

5. How were the amounts of fugitive emissions estimated if fugitive emissions were reported?

Unknown or N/A for Connecticut 2019 air emissions reporting, but it is common practice to consider capture efficiency in emissions calculations.

6. Are the EtO sterilizers in your jurisdiction equipped with pollution control devices such as scrubbers and cathodic reduction. If they are what is the control efficiency?

   For Connecticut. the active sources at Covidien are controlled by a Balancer (Make: LESNI A/S Model: CAP LKV 800) and a Catalytic Oxidizer (Make: LESNI A/S Model: CAP 12000) using Low Temperature Metal Oxide Catalyst. A minimum control efficiency of whichever is less stringent applies: either Ethylene Oxide of 99.9% or a maximum concentration of 1.0 ppm in outlet gas. Covidien LP operates two sterilization systems (each consisting of a sterilization chamber and a primary aeration room, as well as two secondary aeration rooms that are shared by both systems). The devices are introduced to the sterilization chamber and sterilized using a mixture of ethylene oxide, nitrogen and steam. The sterilized product is then off-gassed; first in a primary aeration room and then a secondary aeration room. All sterilizer and primary aeration room exhausts and vents are ducted to a single stack equipped with a balancer and oxidizer.

7. How did the emissions of EtO reported in your inventory compare to those for your facilities that reported EtO in the TRI, the same, less or greater?

   The only facility reporting EtO emissions in Connecticut Air Emissions reporting was a hospital that reported 8.8 pounds of EtO for the hospital in 2017, but these emissions do not appear in 2017 TRI data for our state.

8. What were the results of any required OSHA monitoring for EtO oxide at these facilities?

   Connecticut air emissions inventory staff are not aware of OSHA monitoring results at permitted facilities.

The EIS data is in EthyleneOxideEIS.xlsx workbook provides a full complement of 2017 EIS data for Ethylene Oxide. State systems could possibly have more information than EIS. The EIS and TRI data should cover many of the emissions inventory related questions. Many of the questions are out of scope and not something I plan to look into. The bottom line I got from the discovery of excessive EtO fugitive emissions beyond what as estimated is maybe it is worth looking into making sure emissions capture were considered in the design of the controls being used. Emission estimate techniques are reviewed by field inspectors.

I hope this information is of use to you. Please let me know if I missed some meaningful action item.

Thanks,

Steve

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(Formerly called the Technical Services Group)
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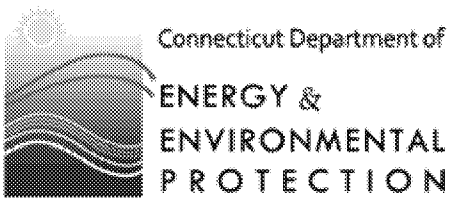

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From: Susan McCusker <smccusker@marama.org>
Sent: Wednesday, March 4, 2020 11:34 AM
To: adam.lewis@dep.nj.gov; alexandra.lokerson@dep.nj.gov; acaluseriu@pa.gov; alexandra.catena@dc.gov; alexi.mangili@dem.ri.gov; allison.m.flynn@maine.gov; andrew.bollman@ncdenr.gov; bin.z.schmitz@wv.gov; britrowbri@pa.gov; boshinski@pa.gov; carlos.mancilla@dec.ny.gov; dtrostle@pa.gov; collin.smythe@vermont.gov; david.r.fewell@wv.gov; david.healy@des.nh.gov; Deborah Dutcher Wilson <dwilson@marama.org>; Denise.E.Cormier@maine.gov; doris.mcleod@deq.virginia.gov; emily.bull@maryland.gov; husain.waheed@maryland.gov; jacquelyn.cuneo@delaware.gov; Jiazheng.Li@phila.gov; joey.huang@ncdenr.gov; john.barnes@dec.ny.gov; jolyon.shelton@delaware.gov; joseph.jakuta@dc.gov; judy.rand@dep.nj.gov; judylrand@verizon.net; karen.slattery@dem.ri.gov; Kathleen.Errington@des.nh.gov; Knight, Kathleen <Kathleen.Knight@ct.gov>; kenneth.santlal@state.ma.us; kenneth.newkirk@dec.ny.gov; kdalal@pa.gov; kotur.narasimhan@deq.virginia.gov; marcus.tutt@dep.nj.gov; marie.barnes@dec.ny.gov; mark.prettyman@delaware.gov; mahouser@pa.gov; mark.wert@state.ma.us; matt.a.kemper@wv.gov; matthew.davis@ncdenr.gov; maureen.hancock@state.ma.us; michael.kiss@deq.virginia.gov; michael.woodman@maryland.gov; ona.papageorgiou@dec.ny.gov; ranbordner@pa.gov; randy.strait@ncdenr.gov; Rodrigue, Richard <Richard.Rodrigue@ct.gov>; Roger.Thunell@Maryland.gov; Shane.Cone@Delaware.Gov; sharon.davis@dep.nj.gov; sonya.lewis-cheatham@deq.virginia.gov; stacy.r.knapp@maine.gov; Potter, Steven <Steven.Potter@ct.gov>; tammy.manning@ncdenr.gov; thomas.foster@deq.virginia.gov; Anthony.Sadar@alleghenycounty.us; Walter.Simms@Maryland.gov; Jacobs, Wendy <Wendy.Jacobs@ct.gov>; Bartlett, Joshua W <joshua.bartlett@ncdenr.gov>
Subject: Notes from March 2 EI Leads call

Hello EI Leads,
Here are notes from the Monday, March 2 call. Please feel free to add/subtract/correct & reply to all. Also, if you have any topics you'd like to discuss on the next call, please feel free to let me know.

Next call currently scheduled for Monday, April 6 @ 10 am, but that may change. Stay tuned.

- A few TO DOs:
  - Continue conversation about ethylene oxide (EtO). Alexi mentioned a massive increase in estimated emissions (from fugitives) for a facility in 2017.
    - Marie Kelly sent a few questions about EtO below. She'd like to see what types of facilities are reporting emissions of EtO besides commercial ones in different jurisdictions, and approximately how much they are reporting, to compare to the facilities that are being asked to report this compound in Allegheny County. We would appreciate it if you would also forward these questions to anyone else in your agency (e.g., permitting, enforcement) who is familiar with sources that emit EtO. Please respond to Marie (marie.kelly@alleghenycounty.us) and Debbie (dwilson@marama.org).

1. How many and what type of sources do you have reporting EtO in your inventory?
2. What is the range in pounds or tons on the amounts reported within your jurisdiction?
3. What is the average amount of EtO reported by each source in each classification from stacks?
4. What is the average amount of EtO reported in each classification as fugitives?
5. How were the amounts of fugitive emissions estimated if fugitive emissions were reported?
6. Are the EtO sterilizers in your jurisdiction equipped with pollution control devices such as scrubbers and cathodic reduction. If they are what is the control efficiency?
7. How did the emissions of EtO reported in your inventory compare to those for your facilities that reported EtO in the TRI, the same , less or greater?
8. What were the results of any required OSHA monitoring for Eto oxide at these facilities?

        - If you (or someone else in your agency) is familiar with EtO and/or other emerging pollutants, we welcome you to join an advanced Emerging Pollutant Issues Workgroup that MARAMA started in January (Registration URL: https://attendee.gotowebinar.com/register/2242949147959840523). Next (2nd) meeting on March 10 @ 2 pm. The group will be working on a White Paper, and we can get occasional updates on future EI Leads calls.
    - Stacy's question about how states are planning to require facilities to estimate heated petroleum storage tank emissions given new AP-42 (and how states will check):
        - Several states responded separately to Stacy.
        - Andy mentioned that the American Petroleum Institute (API) has provided support in the past. Susan contacted the API to see if there is any current support available, waiting for response.
        - We'll check back on future EI Leads calls
    - DC had an inquiry from Howard University about a modeling inventory. Stay tuned for follow up questions on the 2016 inventory

Other notes:

- MOVES updates (2017 NEI vs. 2016v1) – Debbie (slides attached)
- Emissions Inventory Training At EPA May 5-7, 2020
    - Looks like so far Alex, Andy, Josh, Kathleen, & Stacy are planning to go
- Any feedback from proposed SCC change conversation with EPA?
    - Janice Godfrey taking over for Julia Gamas
    - Response from EPA:
        - Given the special situation of the Boiler SCCs, at this time we will not be changing those codes. When a broader boiler review is performed in the future, we will revisit any code changes that any sector rules call for.
        - While we understand that some states have their SCCs tied to their permits, we encourage those states to consider reviewing if and how SCCs are explicitly included in their permits. We hope you understand that as rules are reviewed and technology changes, SCC changes become inevitable.
    - No feedback yet on WebFire updates resulting from proposed SCC changes
- MANE-VU TSC's Regional Haze SIP requirements training materials – Dave H
    - Great resource as intro/refresher for new & current staff